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## EVOLUTION OF THE AIR FORCE COMPOSITE WING

BY

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United States Air Force

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EVOLUTION OF THE AIR FORCE COMPOSITE WING

AN INDIVIDUAL STUDY PROJECT

by

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## ABSTRACT

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The Air Force is in the process of two major changes which will greatly impact the shape of the Air Force over the next decade. One of these changes is the reorganization of flying units into composite wings. These composite wings are highly potent combat organizations which stress the principle of unity of command by placing all the necessary forces to conduct one or more aerospace missions under one commander. The original concept of a composite wing is rooted in the history of the Air Force back to World War II. This paper examines the original doctrine and concepts for organizing a fighting force in World War II and then traces the evolution of this organization throughout World War II and up to the Gulf War. There are some striking similarities to today's composite wings in some of the units in World War II. The press of political problems during and after the war caused the Air Force to change to a highly specialized and complicated structure which was in place prior to the Gulf War. Composite wings proved their value in the Gulf War and are currently being organized on several Air Force Bases.

## LIST OF ILLUSTRATIONS

Figure 1: Operational Chain of Command, AEF, 1 April 1944.....	13
Figure 2: Operational Chain of Command, AEF, 1 October 1944..	14
Figure 3: Suggested Theater Level Organization.....	18

## INTRODUCTION

Shortly after the completion of Operation Desert Storm, General Merrill A. McPeak, the Air Force Chief of Staff, announced a major restructure of the Air Force including the formation of a new type of organization called the Composite Wing. This restructure includes many basic changes to the Air Force from top to bottom. Many people have since questioned the need to make such radical changes because of the highly successful air campaign in Desert Storm. In this paper, I will focus on the composite wing portion of these changes. I will trace the origins of the composite wing concept from the beginnings of World War II and modern airpower. It is my contention that the theory behind the composite wing is based on sound military doctrine and efficient command and control principles. History will show how we strayed from this concept and created some of the problems which plagued the Air Force between World War II and Operation Desert Storm.

## THE STRUCTURE OF THE AIR FORCE

The Air Force is organized around squadrons as the lowest level of organization which is self sufficient and has its own commander. With some exceptions, this has been true since the First World War. Squadrons normally have a single mission or a family of closely related missions. Squadrons are usually part of a larger organization, such as a group or wing, which has a broader tactical mission. This larger organization may have several levels of superior headquarters. At some level of command, there is an organization where tactical control and direction of the war effort is maintained. It is this level of tactical control and direction where there is sufficient authority and resources to accomplish a broad mission type order.

Since World War II, this level of command, where the tactical control and direction of the air war is exercised, varied from the numbered air force, where it was after that war, to the highest levels in Washington. It is now concentrated at the major command level. Now, this level of tactical control is moving back down to the composite wing. I will briefly look at how this was established for each level.

The Army Air Corps had an enormous task at the beginning of World War II. It quickly expanded during the early war years,

and a look at the doctrine of the time shows what was originally intended. With the publication of War Department Field Manual (FM) 100-20 during the Second World War, *Command and Employment of Air Power*, dated July 21, 1943, the structure of a tactical air force was spelled out. "Usually there would be one air force-the largest AAF tactical unit-in a theater of operations."<sup>1</sup> The composition of this force would include all of the strategic and tactical elements along with their support forces necessary to prosecute the war. It was given a mission with all the necessary forces to carry out this task along with one responsible commander.<sup>2</sup>

This, perhaps, is the beginning of the concept of a composite wing; since it contained the same philosophy as is now being proposed for the employment of modern airpower. This concept was used and modified throughout World War II in the application of airpower.

Later I will go into more detail on how this basic structure was changed throughout the war, and to the present. This doctrine is important, because it was the starting point. It contains some important concepts which are receiving more emphasis under the Air Force restructuring. Today's modern Air Force still resembles this early organization in many ways.

Air Force Manual 1-1, Basic Aerospace Doctrine of the United States Air Force, divides the application of aerospace power into four basic roles: aerospace control, force application, force enhancement, and force support. These roles



describe broad functions for aerospace forces. Aerospace forces also have missions which are specific tasks. Missions may apply to more than one roll and a specific aerospace force normally will be able to accomplish multiple roles and missions. Missions include, counterair, close air support, airlift, logistics and many more.<sup>3</sup> Throughout this paper, I will focus on the level of command which has responsibility for the accomplishment of one or more of these aerospace missions. This level where total responsibility for an aerospace mission is found will change depending upon the organization, assigned forces and assigned responsibility. I will use the phrase, "aerospace mission," when I refer to the level of command with sufficient forces and responsibility to accomplish this mission for a given theater. A unit assigned to such a theater may be tasked to support this aerospace mission, but if the commander of this unit does not have overall responsibility for the assigned aerospace mission, I will be interested in the higher level of command where this responsibility is assigned.

The major differences between World War II organization and now resulted from the ever increasing specialization of modern aircraft. During World War II, we had bombers, fighters and transports which were less specialized than most of today's aircraft. For example, the air superiority fighters of that time also made excellent close support or interdiction aircraft. We now have a very specialized force, with aircraft tailored specifically to many more aerospace missions. These include, air

superiority fighters, tankers, strategic and tactical classes of bombers, transports, reconnaissance, electronic warfare, electronic support aircraft, battlefield management aircraft of several categories and many more. These aircraft are grouped in squadrons of up to 24 aircraft of the same design. Normally, three squadrons form a wing of the same type of airplane. This is done for efficiency in management, and for the complex maintenance requirements of modern aircraft. This specialization also results in a requirement for a complex command and control system to effectively employ these aircraft with other aircraft from different wings. Modern combat and combat support aircraft must work together to allow a synergism which is much greater than their individual capabilities.

Wings belong to numbered air forces which may not contain all the aircraft necessary to accomplish an aerospace mission. The numbered air forces can be categorized as either strategic, tactical or transport, and contain only aircraft specialized for these types of aerospace missions. Numbered air forces belong to major commands which are similarly categorized. It was only at the unified command level, in the Gulf War, where we even came close to having all the assets necessary to fight a war under the same commander. There, the air component commander developed a very complicated command and control organization to allow the integrated use of all the available airpower. The idea behind the composite wing is to simplify this arrangement by creating a capability at a lower level to coordinate the

detailed management of the air war.

The composite wing will be similar to the wings we have now in many ways. One of the differences is that there will be only one wing on a base. Previously, if there were aircraft of different types, we may have placed two different wings on the same base. These composite wings will include a variety of different aircraft which will compliment each other in the performance of an aerospace mission. For example, a new composite wing is scheduled to open at Pope Air Force Base near Fort Bragg. This unit will concentrate on the aerospace missions related to supporting the 82nd Airborne Division stationed there. This wing will have the airlift, close air support and forward air control aircraft necessary for the types of aerospace missions which support airborne forces. There will be several other types of composite wings with related aerospace missions similar to this. Because these composite wings will have all the assets necessary for an aerospace mission, they will be more flexible and easily employed.<sup>4</sup> They may not be able to accomplish every aerospace mission necessary for an aerospace role in modern aerial combat, but they will greatly reduce the detailed coordination necessary from the highest levels.

#### NORTH AFRICA

The reason the Air Force is making this sweeping

reorganization of an already highly successful force can be seen by tracing the history of how it evolved from the force built in World War II. I will look at how this evolution progressed through that war, Korea, Vietnam, and the Gulf War.

Early World War II doctrine for air forces, as seen in an Army Air Force publication, The Air Force in Theaters of Operation: Organization and Function, envisioned an organization with emphasis on assisting the tactical squadrons to accomplish the aerospace mission they were to be assigned by the Commanding General of the Theater.<sup>5</sup> This directive, while rather vague on how this was to be accomplished, was clear in its intent to draw, "the distinction between the Air Force as an auxiliary to Ground Forces, and *Air Striking Force* as a new method of fighting a new kind of war."<sup>6</sup> We can infer from this intent, that some of these early airpower proponents had in mind some sort of fighting force with the characteristics of today's composite wings. That is, the "Air Striking Force" should be able to accomplish a given aerospace mission without having to depend upon other assets which were not under their control. This position was not completely accepted at the time. At the beginning of the strategic bombing campaign against Germany, the Eighth Air Force Commander held firmly to his belief in supremacy of the bomber. It was not until the summer of 1943, when bomber losses became so high, that fighter escorts became mandatory.<sup>7</sup> This trend toward combining strategic and tactical assets would come and go during World War II.

The early campaign in North Africa was a classic lesson in the application of airpower. The results of the command and control changes made in this theater were to impact operations in all the theaters in this war. They also apply to the application of airpower now. The reasons for a composite wing can be seen in the lessons learned during World War II. These lessons were gradually lost on the Air Force over the years as the Air Force optimized its structure for peacetime maintenance efficiency at the expense of combat effectiveness.

During the early stages of the campaign in North Africa, the command and control of airpower was fragmented and split both between the two major forces (RAF and US), and within the US forces by functions, not by aerospace missions. These air forces were then attached to the local ground commanders. According to General William W. Momyer, USAF, ret., "The doctrine at the time was that . . . an air support command was attached to an army formation and directed by that ground force commander, who had the more important mission."<sup>8</sup> This led to the priority aerospace mission becoming close air support without first gaining air superiority. The end result was that losses to enemy aircraft were unacceptable and the aerospace missions were totally lost. The fighters used in the war were capable of performing both aerospace missions, but the problems were command relationships and priorities. After the battle for Kasserine Pass, the allied high command directed a new structure for centralized command and control of airpower throughout the

theater.<sup>9</sup>

The final structure was approved at the Casablanca Conference. According to Air Marshall Tedder:

The proposals for the new air command were finally approved by Rosevelt and Churchill on 26 January (1943). An Air Commander-in-Chief for the whole Mediterranean theater would set up his headquarters at Algiers; under him would serve the Air Officers Commanding Northwest Africa, the Middle East, and Malta. He would be subordinate to the Commander-in-Chief Allied Expeditionary Force in Northwest Africa.<sup>10</sup>

What evolved, was an air force which had all the necessary assets to accomplish an aerospace mission under one commander, with a command and control system at the lowest possible level. The flexibility and combat efficiency of this organization were very good. The dramatic success of this organization set the example for subsequent American doctrine for the application of airpower. Now that the air forces of the two allies were under one command, the first priority given by the new commander was to gain air superiority followed by strategic attacks against reinforcements coming into the theater, and then close air support. This method was successful and contributed to the rapid defeat of the Axis forces in North Africa.<sup>11</sup> This is the beginning, I think, of the concept which now is being called the "Composite Wing." The basic premiss here was that an air force under one commander was given the responsibility to support the joint force commander in completing his mission. The concept became somewhat more complicated with time, because

the air forces needed to accomplish this aerospace mission are more specialized and complex in today's modern environment. In World War II, fighter, bomber and transport aircraft were able to accomplish aerospace missions without as much external support.

#### COMMAND ARRANGEMENTS IN EUROPE

In England, the RAF and US forces were organized under a highly coordinated but complicated command and control system, which evolved from the British system that was already in place when American forces were introduced into the war.

When it came time to develop command arrangements for operation OVERLORD, politics interfered with the process. A single air component commander was not created. There were two separate air forces created. One was strategic, and one tactical. The tactical force was called the Allied Expeditionary Air Force (AEAF) under Air Chief Marshall Leigh-Mallory which included the RAF Second Tactical Air Force and the U.S. Ninth Air Force. The strategic force included RAF Bomber Command and the U.S. Eighth Air Force. The British strongly resisted any attempt to change the existing loose command arrangement, so this force was coordinated by Sir Charles Portal of the Combined Chiefs of Staff. These two forces seemed to work together without any direct single commander. The Americans were concerned that the British would command a unified air force and divert the effort away from

precision daylight bombing of Germany, while the British were afraid that a unified force would interfere with their plans for the Mediterranean.<sup>12</sup> This could easily be the source of some of our future command and control problems. The overwhelming numbers of Allied air forces made it possible for the Allies to destroy the German Air Force in spite of this lack of unity of command.

After the invasion of the continent, unity of command of the allied air forces was further divided. A numbered air force was placed directly under each army group. Strategic air forces were still totally separate back in England.<sup>13</sup> These numbered air forces had some similarities to the composite wings now being formed.

The end result of these reorganizations according to General Momyer was:

When the AEAFF [Allied Expeditionary Air Force] was dissolved on 15 October 1944, nothing resembling a theater air component command was left. The need for such a command, however, was most apparent: Detailed coordination of the tactical and strategic air forces demanded a component commander whose staff was primarily concerned with such matters hour by hour. This level of detailed planning was left to SHEAF [Supreme Headquarters, Allied Expeditionary Forces]. Unfortunately, the SHEAF staff wasn't equipped to handle both the long range strategic planning and the tremendous job of tactical planning for all air and ground forces.

Thus Eisenhower's decision to sidestep the problem of choosing either an American or British ground force component commander resulted indirectly in the unfortunate lack of an air component command.<sup>14</sup>

This chain of events set the stage for the controversy



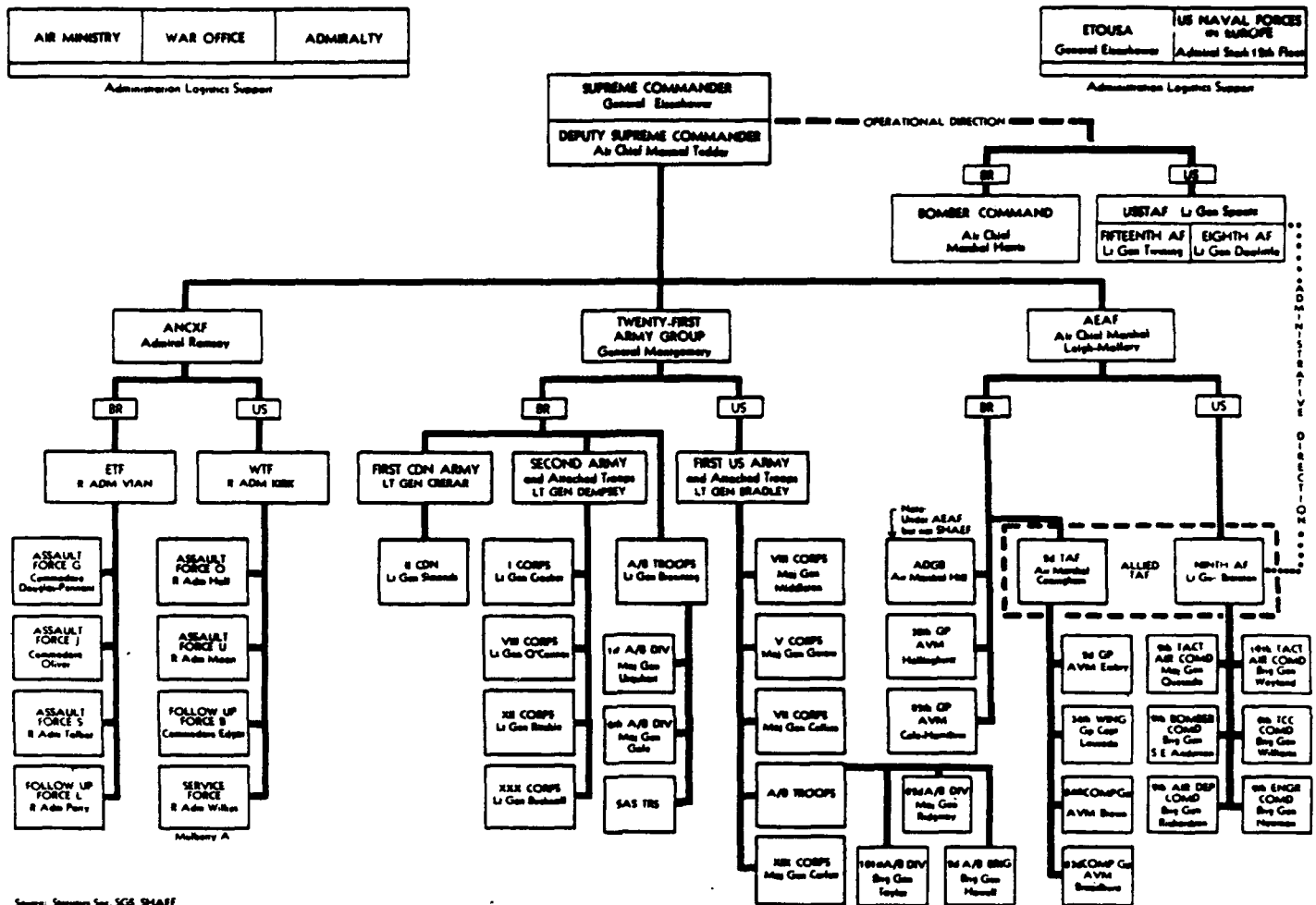
about command and control of air forces which continued throughout the next two wars. The success of our invasion clouded the issue of what would have happened if the German Air Force had not been destroyed before the invasion. What would have happened to this force with a fragmented command and control system in the face of a capable foe? Within the numbered air forces assigned to each army group, however, there is an interesting example of a numbered air force accomplishing an aerospace mission. Figure 1 shows the operational chain of command for Allied Expeditionary Forces on 1 April 1944 while Figure 2 shows the operational chain of command on 1 September 1944. The shift away from a theater air component commander is evident in these charts.

#### NINTH AIR FORCE IN WORLD WAR II

The air war in Europe evolved in several ways depending on location and circumstances. I will look at the evolution of the Ninth Air Force as an example of the trend toward composite wings even during World War II. This force was reconstituted in England during 1943 to provide tactical airpower for the invasion force which was being assembled for Normandy. It supported the 12th Army Group, and it had all the attributes of today's composite wings.<sup>15</sup>

The requirement to be self contained and provide all the required support for an army group, meant that this force

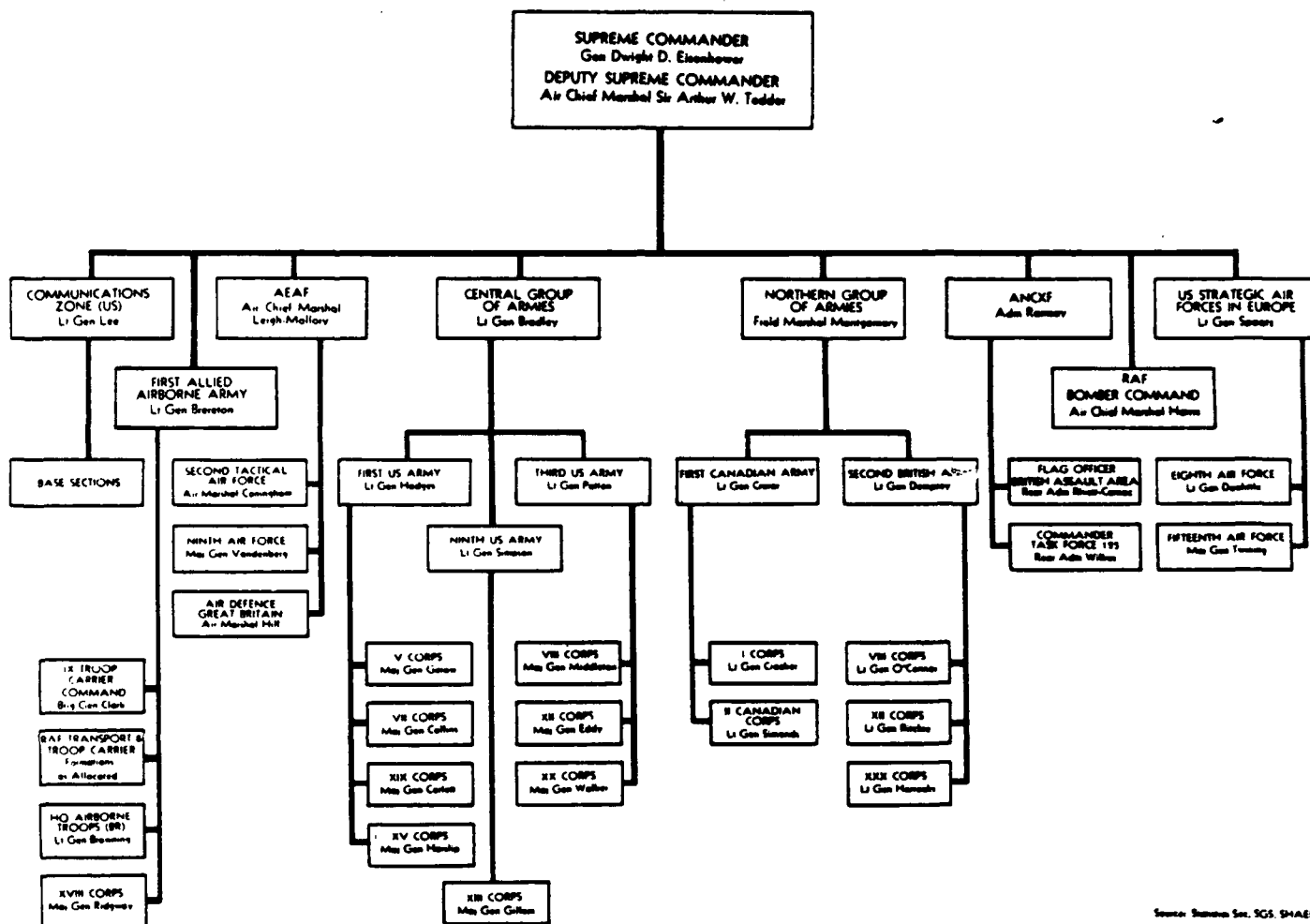
Operational Chain of Command, AEF, 1 April 1944



Source: Chart 4, The Army Air Forces in World War II, Volume Three, Europe: Argument to V-E Day, January 1944 to May 1945

**Figure 1**

# Operational Chain of Command, AEF, 1 September 1944



Source: Summary Ser. SGS, SHAEF

Source: Chart 5, The Army Air Forces in World War II, Volume Three, Europe: Argument to V-E Day, January 1944 to May 1945

Figure 2

had all the elements of air power existing at that time. It was also highly mobile, because it moved with the army, and it was highly integrated into the ground forces command and control. While this force was much larger than today's composite wings, the destructive force of today's weapons distorts the picture both in the air and on the ground, so that the capability of one composite wing today may be close to that of an entire numbered air force in World War II. I think the overall effect of these two organizations is comparable.

This organization was not without its problems. The administrative support for this force was split between two headquarters, while the tactical command was closely aligned. According to the official history, "The division of responsibilities for the control of the tactical air force worked out 'satisfactorily' at best."<sup>16</sup> This could be interpreted as a pitch to establish an overall air component commander which did not happen until recent times.

One portion of the total air effort was not included in the Ninth Air Force at this time. That was the long range strategic bombers which remained under the command of Eighth Air Force in England. These forces were given a different aerospace mission. This division of responsibility is similar to the different aerospace rolls and missions which will be given to different composite wings in the future. It is interesting to note the varied forces which were included in Ninth Air Force. They included several fighter and fighter bomber groups, a medium and

light bomber group, a troop carrier group, a reconnaissance group, an air defense group, an engineer group, and the services command. This large force was essentially self contained and designed for mobility with all the varied assets necessary to support the ground army.<sup>17</sup> Ninth Air Force of World War II is not unlike the composite wing of fighters and tactical airlift which will be formed at Pope Air Force Base to support the 82nd Airborne Division.

Ninth Air Force had a unique headquarters for its time. According to its official history, it developed a, "compact, highly mobile advanced headquarters which would move forward on the same axis of communications as . . . army group headquarters."<sup>18</sup> This is another example of how the organization of this unit closely resembled the central theme of the composite wing. The composite wing will be given one or more aerospace missions and all the forces and authority to complete these missions.

For Ninth Air Force, they still had to work out how to control the tactical execution of this effort. During the first campaigns in France, there were two separate fighter wings in Ninth Air Force, each with its own command and control system. This was inefficient in the application of airpower, and it was soon consolidated at one combat operations center.<sup>19</sup> This arrangement is similar to the requirement to maintain a single joint force air component commander with the authority to control all air operations through an all-inclusive air tasking

order, as was done in the recent Gulf War.

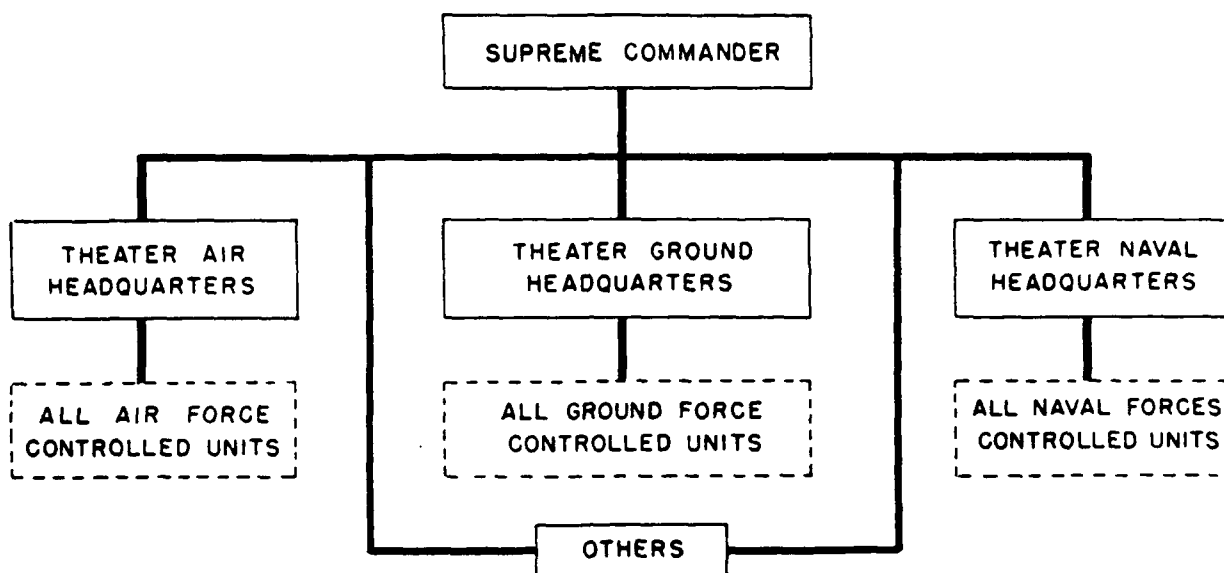
Ninth Air Force underwent a major command realignment a few months later, as they moved further inland, and the pace of operations accelerated. They adopted the directorate system which moved most of the staff to a rear main headquarters and concentrated all operations, intelligence and communications functions in a much smaller forward headquarters to make it more mobile. This proved satisfactory throughout the remainder of the war.<sup>20</sup>

After the war, Ninth Air Force made several recommendations for improvements in the organization of airpower. In recommending changes to Field Manual 31-35, Aviation in Support of Ground Forces, they concluded,

FM 31-35's treatment of the composition of a tactical air force is no longer correct or applicable. The basic assignment of bomber, interceptor, air support and air force base commands to a tactical air force was modified in the Ninth Air Force to provide for a bombardment division, three tactical air commands, an air defense command, an air service command and an engineer command. Such flexibility in the alignment of commands is not visualized in FM 31-35.<sup>21</sup>

The implication here is that the future of the Air Force should be some type of a composite force and not divided along functional lines as we see the United States Air Force now structured. The recommendation did not stop here but also included a recommended theater level organization which is shown in Figure 3. This is a classic unified command of today with equal component commanders.<sup>22</sup>

### Suggested Theater Level Organization



( Supply channels to follow conventional lines )

Source: Condensed Analysis of the Ninth Air Force in the European Theater of Operations, Page 97

Figure 3

## ITALY

The organization of air forces in the Italian theater was very similar to the organization used by Ninth Air Force. The overall command of American and British forces was given to Lt Gen Ira C. Eaker as the commander of the Mediterranean Allied Air Forces. He organized several sub commands including Fifteenth Air Force and Twelfth Air Force which were very similar to the Ninth Air Force. There was a difference in this theater because their primary aerospace mission was to support the strategic bombing campaign against Germany. They occasionally had to make some difficult choices, but their main fighting elements were well structured to support their theater level mission. This proved extremely successful in Operation STRANGLE, which in three months completely cut off all logistical support to the German forces in Italy and opened the way for the breakout to Rome. This is another example of a successful composite wing type organization. Given the difficulties we had in the intervening years, such as command and control problems in Korea and Viet Nam which I will discuss later, we can only wish the vision of these early air force commanders had been adopted.<sup>23</sup>

## CHINA-BURMA-INDIA

The air forces in the China-Burma-India Theater during 1943



show all the potential of composite wings, but the command arrangements in this theater restricted their application. An examination of some operations in this theater shows some problems resulting from a fragmented command and control system. There were several separate commands organized along functional lines. The fighter, bomber, airlift and support forces were all under separate commands. A strategic objective of Generals Chenalt and Stratemeyer was to use B-29s based in Calcutta staged through Chinese bases to attack Japan. The limiting factor in this plan, called "Twilight," was logistics. Because the support requirements for the B-29 force were so great, Twilight could only succeed if the allies gained control of the northern lines of communication to the Chinese bases. There was much disagreement, both within the American high command and among the allies in this theater, about where to mount the major effort and whether the priority should go to the eastern approaches to Japan. In the end, these lines of communication were never secured. A much smaller version of this plan, called "Matterhorn," was proposed to gain support for Twilight. This plan used the hump airlift with B-29s ferrying all their support with them.<sup>24</sup>

One example of the potential for success for these types of strikes was on Thanksgiving Day 1943. The air forces of General Chenalt mounted a successful composite strike force of 8 P-51As, 12 B-25s and P-38s against Shinchiku, Formosa, which destroyed 42 Japanese aircraft. In contrast to this success, the Matterhorn

operation was plagued with logistic problems, and even when given a short period of hump airlift priority, could not produce results. Without adequate C-47 support or Chinese ground transport, the real objective of producing a B-29 strike on Japan could not be accomplished. Lastly, in 1944 General Wedemeyer, the Deputy Commanding General of the South East Asia Command, decided the support necessary for this operation did not exist and ended the project. Operations continued at a lower level throughout the rest of the war.<sup>25</sup>

The failure here can be attributed to many factors, not the least of which was a lack of priority by the allies on this theater and a general lack of unity among the allies concerning which strategy should be pursued in this Theater. It is also true that the air forces were fragmented along functional lines and thus enjoyed less unity of effort than would have otherwise been the case. If this can be seen as a cause of the marginal results in this theater, then we can speculate what might have happened if General Chenalt had been given all the resources necessary to accomplish his aerospace missions. With command of more than just the fighter assets, i.e., a composite force, he might have been able to mount a more successful campaign. The accomplishments of the airlift over the Hump and his Flying Tigers were noteworthy, but they were not decisive in the war with Japan. A more unified effort might have produced better results which could have justified more resources in this theater, and changed the course of the war.

Before I leave the China-Burma-India Theater, I would like to examine what happened later in the war. The Sextant Conference in November 1943 took sufficient priority away from the China-Burma-India Theater to support any major action against Japan from China.<sup>26</sup> There were many political forces at work to shape the effort in this theater. On the British side, Mountbatten decided to insist on an integrated air force after the success of the integrated air forces in North Africa. Surprisingly, the American commanders resisted, possibly because the overall commander was to be British. Finally, General Marshall approved this concept over the objections of his U.S. commanders.<sup>27</sup> However, this unified air command was not universally applied, because when the B-29s did arrive in theater, they were placed directly under the Joint Chiefs of Staff back in Washington. The supply demands they placed on the Theater logistics precluded them from accomplishing any major effect on the Japanese.<sup>28</sup> There never was a composite force assembled under one commander in this theater, with the resources and authority to accomplish the required aerospace missions.

#### SOUTHWEST PACIFIC

The war in this theater was an economy of force operation until the Japanese were forced to retreat from MacArthur's island hopping campaign. General Kenney, MacArthur's air forces

commander, developed an excellent relationship with MacArthur and was allowed to direct the air war effort with minimal guidance from MacArthur. In this theater, there was no clear example of a composite wing. General Kenney was the commander of the Allied Air Forces under MacArthur which included both the U.S. Fifth Air Force and the Royal Australian Air Force Command, Allied Air Forces. Kenney was also commander of the Fifth Air Force but he allowed tactical leadership to be exercised by his deputy, Brigadier General Ennis C. Whitehead. Operations were concentrated on overcoming the enemy air, and on an interdiction campaign. This was loosely directed from the highest levels because of the vast distances involved, but individual units worked well together at the lower levels. There never were enough resources early in the war to satisfy the demands and much of Kenney's efforts focused on gaining increased priority and supply. When the war did turn around, most of the air effort was the strategic B-29 bombing of Japan which was directed from Washington. The lack of an appreciation for the close coordination between air units became a problem for MacArthur in Korea, as I will show later.<sup>29</sup>

#### POSTWAR ORGANIZATION

After the war, reorganization of the air forces became a major problem, as the leaders tried to demobilize and still maintain a credible force. General Henry H. Arnold, Commanding

General Army Air Force, and the other wartime leaders of the Army Air Force worked hard to create a separate and equal Air Force. There was much disagreement about this plan with the Navy strongly against any change which could threaten their carrier based air assets. General Eisenhower and President Truman backed the plan to create a separate Air Force and place the three services under one unified department. The independent Air Force was established by executive order and the National Security Act of 1947. Prior to this, the Army Air Force reorganized in March, 1946, so the new Air Force would not have to completely reorganize when the separation finally became effective. This was a time of great change and challenge. The leaders of the Army Air Force waged a battle with congress to keep the air forces at a 70 group and 400,000 personnel level.<sup>30</sup>

As the new force evolved, changes in the organization began to appear. In 1945, they formed a separate training command, plus the Air Force Combat Command. This structure had all the combat forces necessary to prosecute a war, and would have continued the concept of a composite force except in January 1946, General Spaatz, in coordination with General Eisenhower, decided to form three new commands from this Air Force Combat Command. They were Strategic Air Command, Tactical Air Command and Air Defense Command. This was a political decision to make possible the formation of a separate Air Force. They were afraid that after the Air Force was made a separate service, if the new Air Force did not dedicate a part of its forces to the

aerospace mission of tactical air support, the Army would try to form their own air arm.<sup>31</sup> This may be the point where the new Air Force started to specialize and deviate from the concept of a composite force with all the necessary forces under a single commander with an aerospace mission. This trend toward functional organization continued throughout the postwar reorganization.

On September 8, 1945, the War Department further compartmentalized the Air Force, by creating a Strategic Striking Force which included all of the heavy bomber forces, and was kept in the United States. As discussions continued through December of that year, many proposals were considered about further restructuring of the Air Forces. One plan, suggested by Col. Ruben C. Moffat of the Special Planning Division of the War Department and a member of the ad hoc committee tasked to plan for further reorganization of the Air Forces, called for the assignment of heavy bomber forces to all of the overseas commands. His intent was to provide the necessary flexibility and responsiveness to the commanders to enable them to carry out their aerospace mission. This plan was not accepted because, at the same time, the Joint Strategic Survey Committee of the JCS issued a study they had just completed on the future of the atom bomb for the United States. Their conclusion was opposed to splitting any of our strategic forces. They saw a need for a strategic striking power capable of attacking the Soviet Union.<sup>32</sup> This preoccupation with the need for a strategic force

capable of defeating the Soviet Union, dominated the United States Air Force for several decades and eliminated any proposal for a composite type force. Even as the Air Force was divided into several fragmented sections, General Hoyt S. Vandenberg, Air Force Chief of Staff, stated in 1951, "Air power is indivisible. We don't speak of a 'strategic' or 'tactical' Army or Navy, yet these terms constantly are applied to the Air Force. . . ."33

### KOREA

Many lessons of World War II on the correct application of airpower were lost or forgotten during the postwar years of reorganization by the new Air Force. In the period between the end of World War II and the beginning of Korea, the separation of tactical and strategic forces in the Air Force became almost total. Our preoccupation with developing a force capable of strategic nuclear attacks on the Soviet Union led the rest of the force to atrophy. This was also evident in the thought process of air commanders who only wanted to concentrate on their part of the aerospace mission. Korea found the new Air Force still in the process of organization. The National Security Act of 1947 established a unified departmental agency for the separate armed forces. The Joint Chiefs of Staff directed the theater commanders to establish a joint staff to coordinate the efforts of the various services under their command. General MacArthur, as commander of the Far East

Command, delayed three years before he took any steps to follow this directive and then only took two Air Force officers to be part of a Joint Strategic Plans and Operations Group. He never formed an Army Component Command, and thus entered the Korean War without a joint staff. The Far East Air Forces and Naval Forces Far East had no co-equal Army headquarters and thus were forced to deal with both the Theater Command under MacArthur and the Eighth Army under General Walton Walker. In practice, MacArthur exercised command of all major army commands directly as the theater commander, while he commanded all Navy and Air Force units through the senior commander of those two services. MacArthur's theater command attempted to direct the execution of the air war which resulted in a long delay before an effective fighting command was formed in Korea for the air component.<sup>34</sup>

By July of 1950, General Stratemyer, the commander of the Far East Air Forces, was receiving direction and forces direct from the Air Force Chief of Staff. He transferred tactical control of the war effort to the Fifth Air Force advanced headquarters. The lack of a co-equal Army component and the blurred command lines contributed to the difficulties in effectively prosecuting the air war in Korea. Coordination with Navy and Marine assets was also a major problem in this war.<sup>35</sup>

Lieutenant General E. M. Almond, commander of Tenth Army Corps in Korea, planned and led the Inchon landing. In an interview in 1953, he complained of a lack of cooperation by Air



Force units in his operation. His complaint is a familiar one that maintains only the ground commander can properly control air assets in support of his campaign.<sup>36</sup>

The lack of a true joint headquarters to direct the war effort at the operational level seems to be the source of some of General Almond's problems. Without a joint perspective, or the specialized forces capable of supporting the ground forces, it is easy to see why General Almond was not pleased with the Air Force. It was not until 1 January 1953 that a truly joint headquarters formed in this theater. In the intervening time, the Fifth Air Force worked around the problem of coordination among the components and gradually developed an effective air command and control organization in Korea.<sup>37</sup> This organization remains today in a combined Air Headquarters at Osan Air Base.

The Korean war does not give a good example of anything resembling a composite wing. The early years were marked by poor command and control with units fragmented along functional lines. It was only through necessity and hard work that the Fifth Air Force developed an effective organization later in the war. This problem continued into Viet Nam. In that war, we had overwhelming air assets which could do everything we wanted, so the problem was not as apparent.

#### VIET NAM

In the Viet Nam War, the command and control arrangements

for the air forces evolved from the procedures developed since World War II. The trend to divide air forces into small packages of like capable wings was fully developed. Above this level, the control of the theater war effort gradually rose to the point where the Joint Staff in Washington took on more and more tactical direction of the theater forces.<sup>38</sup> As the war in Viet Nam gradually grew, the Military Advisory Group (MAG) changed from a training function for the local forces to a control echelon for the combat effort. By 1961 a tactical air control system was introduced, and the war effort grew without any overall plan for the ultimate size of the commitment. While all of the forces were under PACOM, there were ultimately a number of separate and distinct air forces, who had responsibility for the air war effort. Most notably, the tactical air forces were split between 7th Air Force and the 7th Fleet, which had no common commander until CINCPAC. This forced the local commanders to work out many complicated plans and agreements to allow the coordinated use of these forces. In any event, there was no integrated effort with a composite commander who had all the forces and responsibility to prosecute the air war. The ultimate division of responsibility for the air war occurred in 1965, when the B-52s were introduced into the war. Operational control of these assets was withheld from even the theater commander, CINCPAC, because they still had a strategic nuclear aerospace mission.<sup>39</sup> This was perhaps the farthest the Air Force came from the original concepts of a

unified air commander first practiced in World War II. This system was never as effective as it could have been. Command relations was only one part of the problem with our effort in this war. We possibly could have done better with our forces placed under a single commander. If this commander had been given the responsibility for all aspects of the aerial operation, the results may have been more favorable.<sup>40</sup>

### THE GULF WAR

I will not go into too much detail on the very successful air campaign in the Gulf War. I will focus on the command and control evolution and suggest that this war was the turning point in the movement of the Air Force to adopt the composite wing concept. There were several examples of the formation of provisional wings in Saudi Arabia which functioned somewhat as composite wings. These provisional wings, sometimes, had squadrons from two or more parent wings and occupied the same base in the Gulf due to the lack of operating airfields within the theater. Some of these provisional wings had different types of aircraft assigned, and had to develop their operating procedures on the spot. The problems they faced included commanders exercising operational control and not command of these forces. In the case of the strategic air refueling assets, the air component commander was only given tactical control of these aircraft. Command and operational control were

retained by Strategic Air Command back in the United States.<sup>41</sup>

The management of this massive air effort required an enormously complicated command and control system, which evolved throughout Desert Shield and Desert Storm. These provisional wings had some real advantages. The individual mission commanders previously knew it was an enormous challenge to properly coordinate all the mission details for a large integrated air strike, when all the participating aircraft were stationed on different airfields. The major peacetime training exercises, called Red Flag, consistently showed the advantages of face-to-face coordination among mission commanders. This face-to-face coordination was used in the Gulf War by the provisional wings which had the appropriate variety of aircraft assigned to them.

A better example of a composite wing in the Gulf War was the provisional wing formed in Turkey for the Proven Force element of this war. There was no permanent host wing at Incirlik Air Base, where these forces were deployed. The wing was formed almost overnight in the rush to get a force in place after the start of the war. The best advantage of this wing was the fact that all the forces participating in this part of the war were stationed on the same airfield. It was a composite wing of massive proportion. This allowed complete face-to-face coordination for all missions. The success of this effort is one of the best arguments for the composite wing.

The plan now, is to form several such wings, which will be

able to train in peacetime as they will be employed in war. Command of this force will be clearly aligned under one chain of command through the air component commander to the joint force commander. The mobility and readiness of these composite wings will be greatly enhanced by having them trained and ready to fight with the correct resources already assigned.

### COMPOSITE WINGS

The restructuring of the Air Force was caused, in part, by the changes in the world situation in the 1990s. According to an Air Force White Paper, this was guided by, "the strategic planning framework of Global Reach - Global Power, focusing on air power's inherent strengths of speed, range, flexibility, precision and lethality."<sup>42</sup> There are five themes for this restructure. They are all oriented toward improved command and control. The first will strengthen the chain of command. As indicated in the White Paper, "Field commanders carry the responsibility for mission accomplishment. They will have the resources and authority they need to fulfill that responsibility."<sup>43</sup> The second theme is oriented toward decentralization, the third toward consolidation of resources in the field under one commander, while the last two are oriented on the intermediate levels of command between the field and the Air Staff.<sup>44</sup>

This paper focused on the first three themes and two of

their major changes of the restructure. A basic tenant of Air Force doctrine states that airpower should be applied with centralized control and decentralized execution. One lesson of Desert Storm is that this doctrine is still valid. We now find the distinction between tactical and strategic targets is unimportant because of the increased capabilities of modern weapons. We used strategic B-52s to perform close air support while the primary close air support aircraft, the A-10, was well suited to attack the strategic target of Scud missiles. There is no longer a necessity to divide our forces based on the type of target they can strike, since all aircraft have some capabilities against a range of targets. The result is, that three major commands (Strategic Air Command, Military Airlift Command and Tactical Air Command) will be merged into two major commands: Air Combat Command and Air Mobility Command. These commands will form composite wings of aircraft with different capabilities.<sup>45</sup>

These composite wings will be more capable of accomplishing their aerospace missions without outside augmentation. Modern air combat requires an integrated effort of all our various systems. These wings will have the assets they need to accomplish their aerospace missions and the ability to train and plan together. According to a speech given by Donald B. Rice, Secretary of the Air Force:

The new Air Combat Command will keep combat-ready forces poised to respond to any hot spot quickly, and to fly, fight and win when they get there. It will

include fighters, bombers, and ICBMs; surveillance, reconnaissance and battle management assets; and some tankers and tactical airlift. It will organize, train, and equip for composite force operations and the integrated use of airpower. Desert Storm closed the book on distinctions between "tactical" and "strategic" aircraft. The reason for tactical and strategic commands no longer exists.<sup>46</sup>

Since the concept of a composite wing was present in World War II, why did the Air Force form specialized, single purpose wings? There are some important management advantages to the specialization we have in the Air Force. Modern aircraft are extremely complex and costly when compared to their counterparts of fifty years ago. In the never ending battle to keep the cost of maintaining the Air Force under control, we took every opportunity to become more efficient. The combat effectiveness of this specialized organization was not as compelling as the peacetime cost to keep airplanes flying. It is easy to see how we cut costs and lost combat capability, particularly during the Viet Nam War years. The benefits of optimizing the organization of the Air Force for combat seem clearer after the Gulf War. Composite Wings may cost more than conventional wings to operate because of their smaller numbers of like aircraft on the same maintenance base. This is a difficult proposition in the current situation with large reductions and budget cuts. The Air Force will not convert totally to composite wings. Some wings will remain single aircraft type wings. The cost is too great right now to convert them all. The wings that do convert to composite wings will be the nucleus to prove this concept again. The single aircraft wings will also be available to

augment or form the core of any composite force needed in the future.

The second major change in the Air Force planned by General McPeak, will be to place all units on one base under the command of one wing commander who will now be a brigadier general. Squadron commanders will also have more responsibilities. All this is intended to strengthen the chain of command and place responsibility for the aerospace mission under a single commander. The numbered air force will remain but at a much smaller size. Tactical command and control will flow quickly down from the air component commander to the composite wings, whenever possible.<sup>47</sup>

All these changes in the appearance of the Air Force of the 90s are backed up with a new version of Air Force Manual 1-1, *Basic Aerospace Doctrine of the United States Air Force*. This document, which is dated March 1992, reflects an emphasis on the nine classic principles of war. Among them are unity of command and simplicity, which are certainly reflected in the current Air Force Restructure. The new composite wings, with their assigned aerospace mission and single commander, will be a key element in applying this new version of Air Force doctrine.<sup>48</sup>

The purpose of these changes must be kept in mind throughout the transition. The bottom line was summed up by Secretary Rice when he said, "These and other actions bring together assets at the operational level to practice the combat integration we use in war. Overall, after restructure, we won't



need a five-month rehearsal period like we had for Desert Storm."49

### SUMMARY

Unity of command is such a basic principle of war, that maybe its importance was lost as the Air Force evolved from the Second World War. The press of political decisions and the technological complications of modern air warfare may have masked the obvious simple problems. We made many changes early in the history of the new Air Force to accommodate the overriding importance of the strategic nuclear deterrence aerospace mission. Some of these changes were counterproductive considering the combat capability of our air forces in a conventional war. The original plan was sound. In World War II, the Air Force was to be organized within complete war-fighting units, which would have all the assets and authority necessary to fulfill their aerospace mission. The Ninth Air Force had such an organization and was very successful. This did not happen in all theaters. After the war, politics, the Soviet threat and the complications of the atom bomb influenced the formation of the Air Force. These changes continued through Korea and Viet Nam.

The results of the Gulf War are encouraging and point to the success of the reorganization of the Air Force to include its composite wings. General McPeak's vision of the Air Force

of the future is, "Air Force People Building The World's Most Respected Air And Space Force . . . Global Power And Reach For America."<sup>50</sup> The goal of this reorganization is to make the future Air Force a much better force. As General McPeak said, "Airpower, properly employed, is a decisive instrument."<sup>51</sup>

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